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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,949	01/11/2001	Robert C. Frisch	0102323-00061	9640
21125	7590	07/08/2005	EXAMINER	
NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			NGUYEN, BRIAN D	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,949

Applicant(s)

FRISCH ET AL.

Examiner

Brian D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 9 and 24-30 is/are allowed.
6) ☒ Claim(s) 1-8 and 10-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the text size in the drawings is too small. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

2. Claims 11-20 are objected to because of the following informalities: Appropriate correction is required.

Claim 11, line 17, it is suggested to delete "the" before "the pother of said first and"

Claim 16, line 7, it is suggested to change "adjacent ones" to -- adjacent nodes--.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "to resume message transmission" in line 4 is unclear because the message transmission has not been paused or suspended.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8, 10-11, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani et al (6,574,211) in view of Yeung et al (6,438,13) Esmailzadeh (6,285,663).

Regarding claims 1-8, 10, 11, and 15, Padovani discloses a system comprising a plurality of nodes, the nodes are communicating to one another over a link and the transmission rate is adjustable to meet the network condition (see abstract; col. 7, lines 1-6; col. 29, lines 52-62). Padovani does not specifically disclose aligning the message packet and interposing between symbols of a message packet as an additional symbol to signal an adjacent node on the link. However, aligning the message packet and interposing between symbols of a message packet as an additional symbol to signal an adjacent node on the link are well known in the art. Yeung discloses aligning the message packet (see col. 8, line 40) and Esmailzadeh discloses interposing between symbols of a message packet as an additional symbol to signal an adjacent node on the link (see col. 1, lines 6-8; col. 7, lines 6-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to align the message packet as

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taught by Yeung and interposing one signal in another signal as taught by Esmailzadeh in the system of Padovani in order to improve performance in communications.

7. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani in view of Yeung and Esmailzadeh as applied to claim 11 above, and further in view of James et al (6,208,645).

Regarding claims 12-14, Padovani in view of Yeung and Esmailzadeh does not specifically disclose the use of idle symbol. However, James discloses the use of idle symbol (see col. 2, lines 29-35; col. 4, lines 25-34; col. 5, lines 10-11; figure 4b). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the idle symbol as taught by James in the system of Padovani in view of Yeung and Esmailzadeh in order to improve performance of the communications.

8. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani et al (6,574,211) in view of Yeung et al (6,438,13) James et al (6,208,645).

Regarding claims 16-19, Padovani discloses a system comprising a plurality of nodes, the two adjacent nodes are communicating to one another over a link and the transmission rate is adjustable to meet the network condition (see abstract; col. 7, lines 1-6; col. 29, lines 52-62). Padovani does not specifically disclose aligning the message packet and the use of an idle state control symbol. However, aligning the message packet and the use of an idle state control symbol are well known in the art. Yeung discloses aligning the message packet (see col. 8, line 40) and James discloses the use of idle symbol (see col. 2, lines 29-35; col. 4, lines 25-34; col. 5, lines 10-11; figure 4b). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to aligning the message packet in relation to word

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boundaries as taught by Yeung and using the idle symbol as taught by James in the system of Padovani in order to adjust the transmission rate based on the available data.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani in view of Yeung and James as applied to claim 16 above, and further in view of Esmailzadeh (6,285,663).

Regarding claim 20, Padovani in view of Yeung and James does not specifically disclose embedding a control symbol in a message packet. However, Esmailzadeh discloses this feature (see col. 1, lines 6-8; col. 7, lines 6-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to embed one signal in another signal as taught by Esmailzadeh in the system of Padovani in view of Yeung and James in order to improve performance in communications.

10. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable Keen (5,664,091) in view of Arimilli et al (6,671,712).

Regarding claims 21-23, Keen discloses a system that comprises a first node and a second node. Data and control information is transmitted between the first and second node and retransmitting data packet if the packet is not received at the receiving node (see abstract; col. 5, line 65-col. 6, line 6). Keen does not specifically disclose STOMP symbol. However, the STOMP symbol is well known in the art. Arimilli discloses use the STOMP symbol to cancel an interrupted packet (see col. 3, line 39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the STOMP symbol to cancel the interrupted packet as taught by Yeung in the system of Keen in order to eliminate unusable packet from the network.

Allowable Subject Matter

11. Claims 9 and 24-30 are allowed.

Response to Arguments

12. Applicant's arguments filed 4/15/05 have been fully considered but they are not persuasive.

The applicant argued that *Padovani and Yeung do not teach the use of symbols interposed with a message packet to effect link level control of message flow, and likewise, the secondary reference of Esmailzadeh does not remedy these same deficiencies of Padovani. Esmailzadeh purports to teach among other things, a system that embeds one control symbol, for example, the power control information within another control symbol, for example, the pilot symbol to improve on the required channel capacity, the required transmission power, and the transmission channel interference (col. 2, lines 31-37). Nowhere does Esmailzadeh teach embedding a control symbol within a message packet. Embedding a control signal within another control signal, as suggested by Esmailzadeh, does not have the same benefits as interposing the control symbol between symbols of message packets as taught in the application, such as allowing the control symbol within the message to be implemented immediately to effect the message itself.* The examiner agrees with the applicants that Esmailzadeh teaches embedding a control signal within another control signal. However, Esmailzadeh also teaches embedding a control signal within a message packet. For example, in col. 1, lines 60-67, Esmailzadeh teaches that the control symbol (non-information signal) is transmitted either in the same physical

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channel or in a separate channel (control channel) from the information channel. When the control symbol and the message packet are transmitted in the same channel (information channel), the control symbol is embedded within a message packet. Note that in-band signaling and out-of-band signaling are well known in the art (see cited prior art: 6,690,670 col. 5, lines 48-54 and 6,009,383 col. 6, lines 53-61 for details). The applicant also argued that *the control symbols of the claimed invention are not limited to those that relate data transmission rates as suggested by the examiner in paragraph 5 of the office action. The control symbol contains information to regulate various aspects of the system, such as, but not limited to, buffer status of the nodes, acknowledgement of message receipt, and other information to regulate message flow, identify faulty message, and enhance the speed, and efficiency of the communication over the links.* The examiner disagrees because Padovani teaches all of these limitations including controlling the transmission rate by varying the transmission rate, detect error in the packet and transmit ACK/NACK signal to the transmitting node and the buffer (queue) status (see, for example, abstract and col. 10, lines 18-24). Regarding claim 21, the applicant argued that *the status information in Keen is sent in response to a request from the transmitting device, which is not required for passing the link level control symbol as in claim 21 and the second reference, Arimilli does not remedy the deficiencies of Keen. Arimilli purports to teach a data processing system that includes a plurality of nodes, each with at least one agent, and data storage that is accessible to the agents within the nodes. The nodes are coupled by a non-hierarchical interconnect.* The applicant does not specifically point out what limitations Keen and Arimilli teach or does not teach. However, claims 1-23, in general, merely claim a system including a first node and a second node communicating data and control signals, a receiving node detects

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error in a message and notify the transmitting node of the error and the transmitting node retransmit the message that contains the error. The combination of Keen and Arimilli teaches all the limitations of claims 21-23 as described in previous paragraph.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Castellano (6,690,670) and Mony (6,009,383).

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

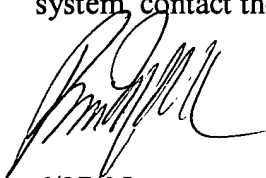
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



6/27/05

BRIAN NGUYEN
PRIMARY EXAMINER